Assessment of the French national experimentation for incentivising hospital prescriptions of etanercept biosimilars delivered in retail pharmacies

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OBJECTIVES: Regarding the low penetration of biosimilar (BS) drugs in the French market, the government has introduced **two incentives to increase BS use**. First, **the "general case" redirects 20%** of the price difference between reference product and its BS **to hospitals** for every BS delivered in retail pharmacy from these hospital's prescriptions. Second, **the "experimental case"** increases the premium to **30%** by specifically **targeting prescribing hospital clinical units** for every BS delivered in retail pharmacy from these clinical unit's prescriptions. The general incentive was introduced in February 2018 and after a call for proposal, the experimentation started in October 2018. Our study aims to compare the efficacy of both incentives after 25 months for **etanercept BS** (from October 2018 to October 2020).

METHOD: We used IQVIA Xponent data to evaluate public hospitals' prescriptions. The number of etanercept boxes delivered in retail pharmacies was given on a monthly basis, and was linked to the corresponding hospital's prescription. The **comparison between hospitals in the experimentation and the others** was assessed by a **difference-in-difference method**.

RESULTS:

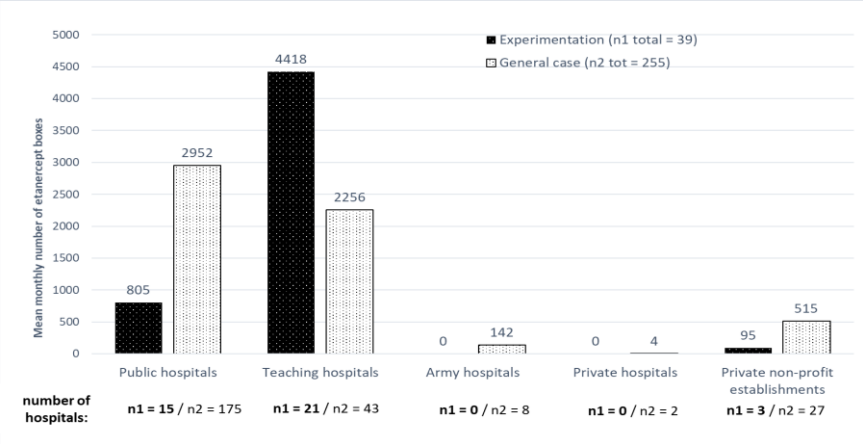


Fig 1: Category of health facilities included in our analysis by incentive group and mean monthly number of etanercept boxes delivered for each.

In both incentive groups, the majority of hospitals are publics : 92% of the 39 in the experiment and 86% of the 255 hospitals in the general incentive. The experimental case group does not include any private or military hospitals (fig 1).
From November 2017 to October 2020, a consistent volume of etanercept (a median of 10,880 boxes per month) was delivered in retail pharmacies ; the experimental group held 46.2% of this market.

The etanercept BS market has increased sharply over the months in both groups (mean monthly rate of +8.6%) and seemed to have reached a plateau since the end of 2019 (fig. 2).
Between November 2017 and September 2018 (period 1), before the experimentation started, the mean rate of etanercept BS was 16.7% and 12.2% respectively for experimental case and general case. Between October 2018 and October 2020 (period 2), it was respectively of 44.6% and 19.3% in average (fig. 3). **The double difference estimator was 10.85-percentage points**. It was **significant** ($p=2.2*10^{-16}$) in favor of the experimentation (fig. 3).

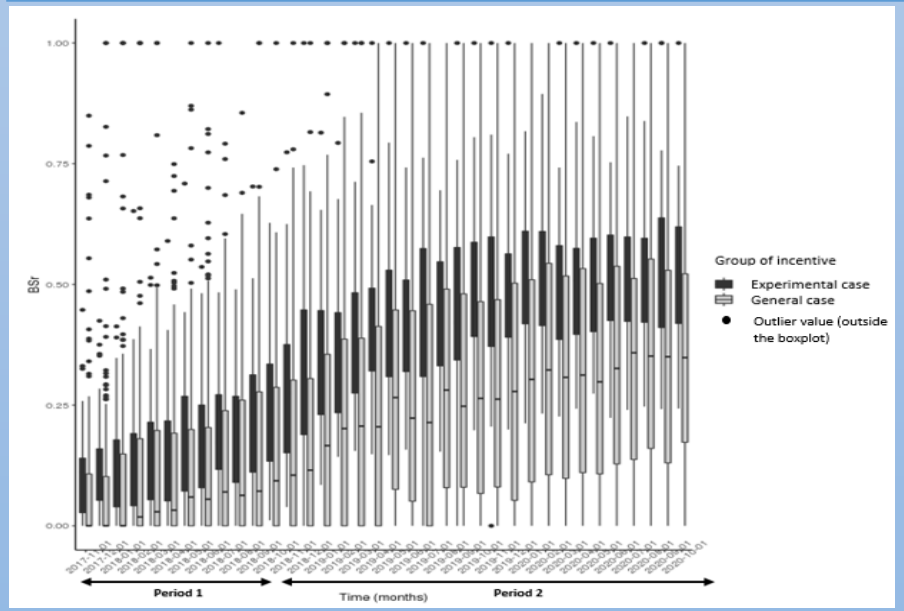
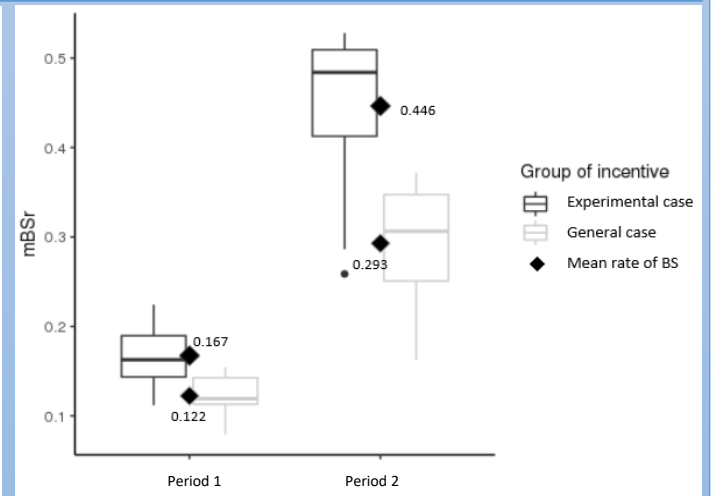


Fig 2: Monthly distribution of the rate of etanercept biosimilar (BSr) by incentive group



Period 1: "before experimentation" November 2017 to September 2018 ;
Period 2: "after introduction of experimentation" October 2018 to October 2020

Fig 3: Distribution of the monthly mean rate of etanercept BS (mBSr) by incentive group before and after the introduction of the experimental incentive

CONCLUSION: This original incentive directly focused on clinical units appears to be more effective on BS use. Initially planned in October 2021, the end of the experimentation was postponed to September 2022 and suggests the future generalization of this incentive to all hospitals.

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